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JOHN H. SHERMAN, LEGAL DEPARTMENT
INTERMEC TECHNOLOGIES CORPORATION
550 2ND STREET S.E.
CEDAR RAPIDS, IA 52401

EXAMINER

LY, NGHI H

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 06/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Art Unit: 2617

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

DETAILED ACTION

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 46 is rejected under 35 U.S.C. 102(e) as being anticipated by Bruckert et al (US 6,018,651).

Regarding claim 46, Bruckert teaches in a communications system (see Abstract), (a) a first antenna and a second antennas for selective operation in receiving mode (see fig.1, antennas 114 and 116), (b) an intermediate frequency stage for selective connection with the first antenna in a first receiving mode (see fig.1, output from box 141 to control box 108, and box 108 transmit control signal 146 to control switch 118), to activate a first signal receiving path and for selective connection to the second antenna in a second receiving mode (see fig.1, output from box 141 to control box 108, and box 108 transmit control signal 148 to control the switch 120), to activate a second signal receiving path (see fig.1, output from box 141), (c) wherein the first and second signal receiving path are circuit paths (see fig.1, see connection between

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antenna 114 and item 133, and antenna 116 and item 137), and the first signal receiving path from the first antenna to the intermediate frequency stage when activated in the first receiving mode to connect only the first antenna to the intermediate frequency stage has a different signal processing characteristic than the second signal receiving path from the second antenna to the intermediate frequency stage when activated in the second receiving mode to connect only the second antenna to the intermediate frequency stage (see fig.1, switches 118 and 120), and (d) wherein the first signal receiving path which is a circuit path extending only from the first antenna to the intermediate frequency stage when activate in the first receiving mode has different component circuit structure which provides a different signal processing characteristic for processing the received signal than the componential circuit structure of the second signal receiving path which is a circuit path extending only from the second antenna to the intermediate frequency stage when activated in the second receiving mode (see fig.1, each time switches 118 or 120 is activated and it reads on applicant's claim limitation).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 18, 20-24 and 47-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruckert et al (US 6,018,651) in view of Jager (US 6,067,449) and further in view of George (US 3,636,453).

Regarding claims 18, 21, 48 and 55-57, Bruckert teaches in a communications system (see Abstract), first antenna (see fig.1, antenna 114), and a first input amplifier for amplifying signals received by the first antenna (see fig.1, amplifier 135),

a second antenna (see fig.1, antenna 116) and a second input amplifier for amplifying signals received by the second antenna (see fig.1, amplifier 139),

an intermediate frequency stage (see fig1, box 141, see "IF"), and a selector (see fig.1, selector 118) disposed between the first input amplifier (see fig.1, amplifier 135) and the intermediate frequency stage (see fig1, box 141, see "IF"), and between the second antenna (see fig.1, antenna 116) for selecting operation of the communications system between the first and second antennas (see fig.1, selector 118).

Bruckert does not specifically disclose an intermediate frequency stage connected to the second input amplifier, and a selector disposed between the second antenna and the second input amplifier for selecting operation of the communications system between the first and second antennas.

Jager teaches an intermediate frequency stage (see fig.3, output from the mixer 308) connected to the second input amplifier (see fig.3, amplifier 306), and a selector disposed between the second antenna and the second input amplifier (see fig.3, amplifier 306) for selecting operation of the communications system between the first and second antennas (see fig.3, selector 336).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Jager into the system of Bruckert so that unnecessary switching between antennas is reduced (see Jager, column 3, lines 31-32).

The combination of Bruckert and Jager does not specifically disclose the first input amplifier includes a feedback loop for altering the operational characteristics of the first input amplifier in receiving mode.

George teaches the first input amplifier (see fig.1, amplifier 8) includes a feedback loop for altering the operational characteristics of the first input amplifier in receiving mode (fig.1, see the feedback loop with input 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of George into the system of Bruckert and Jager in order to provide an output at a relatively constant power level (see George, column 2, lines 41-43).

Regarding claims 20 and 24, the combination of Bruckert, Jager and George further teaches the feedback loop is a closed loop (see George, fig.1, see the feedback loop with input 7).

Regarding claims 22 and 49-51, the combination of Bruckert, Jager and George further teaches the first receiving amplifier includes a feedback loop for altering the operational characteristics of the first receiving amplifier (see George, fig.1, see the feedback loop with input 7).

Regarding claim 23, the combination of Bruckert, Jager and George further teaches the feedback loop includes a switch for selectively activating the feedback loop, to selectively change the signal processing characteristics for the incoming radio signal (see George, fig.1, see the feedback loop with input 7).

Regarding claims 47, 52-54 and 58, Bruckert further teaches a common intermediate frequency stage shared by the first and second signal receiving circuit paths (see fig.1, item 141), a selector system for selecting respectively the first and second signal receiving circuit path (see fig.1, item 118), the first and second antenna supplying a given incoming radio signal to the first and second signal receiving path (see fig.1, items 114 and 116), respectively, and a low noise amplifier in the first signal receiving circuit path between the first antenna and the selector system to provide a different signal processing characteristic for the incoming radio signal in the first received circuit path than the second signal receiving circuit path which lacks a corresponding low noise amplifier between the second antenna and the selected system (see fig.1, item 135).

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruckert et al (US 6,018,651) in view of Jager (US 6,067,449) and further in view of George (US 3,636,453) and Robinson et al (US 5,138,277).

Regarding claim 19, the combination of Bruckert, Jager and George teaches claim 18. The combination of Bruckert, Jager and George does not specifically disclose the feedback loop includes a switch for selectively activating the feedback loop.

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Robinson teaches the feedback loop includes a switch for selectively activating the feedback loop (see the Drawing, switch 112 and see column 2, lines 50-53).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to provide the teaching of Robinson into the system of Bruckert, Jager and George in order to provide new and improved signal processing systems (see Robinson, column 1, lines 35-39).

Allowable Subject Matter

7. Claims 31 and 32 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 31 and 32 are allowed for the reasons as set forth in the previous Office action dated 02/26/2004.

Response to Arguments

8. Applicant's arguments filed 03/23/06 have been fully considered but they are not persuasive.

On pages 12 and 13 of applicant's remarks, applicant argues that George lack the feedback loop includes a switch for selectively activating the feedback loop *and* the first receiving amplifier include a feedback loop for altering the operational characteristics of the first receiving amplifier as recited in claim applicant's claims 19, 22 and 23.

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In response, George does indeed teach the first receiving amplifier (see fig.1, amplifier 8) include a feedback loop for altering the operational characteristics of the first receiving amplifier (fig.1, see the feedback loop with input 7, a feedback loop 7 does alter the operational characteristics of the first receiving amplifier 8, if not as alleged by the applicant, George's antenna system does not need a feedback), and

in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Robinson teaches the feedback loop includes a switch for selectively activating the feedback loop (see the Drawing, switch 112 and see column 2, lines 50-53) and the combination of Bruckert, Jager and George does indeed teach applicant's claimed limitation. In addition, applicant's attention is directed to the teaching of Bruckert, Jager and George in claims 19, 22 and 23 above.

On page 13 of applicant's remarks, applicant argues that Bruckert fails to teach the limitation of newly added claim 46.

In response, Bruckert does indeed teach claim 46. In addition, applicant's attention is directed to the teaching of Bruckert, Jager and George in new claim 46 above.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571) 272-7911. The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Nghi H. Ly



CHARLES APPIAH
PRIMARY EXAMINER